General

Guideline Title

Optimal excision margins for primary cutaneous melanoma.

Bibliographic Source(s)

Alberta Provincial Cutaneous Tumour Team. Optimal excision margins for primary cutaneous melanoma. Edmonton (Alberta): CancerControl Alberta; 2013 Feb. 10 p. (Clinical practice guideline; no. CU-10). [42 references]

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Alberta Cutaneous Tumour Team. Optimal excision margins for primary cutaneous melanoma. Edmonton (Alberta): Alberta Health Services, Cancer Care; 2011 Feb. 11 p. (Clinical practice guideline; no. CU-010).

Recommendations

Major Recommendations

For staging, please refer to the Appendix in the original guideline document.

An initial excision biopsy should first be performed according to recommendations outlined in the National Guideline Clearinghouse summary of the CancerControl Alberta guideline Biopsy of a suspicious pigmented lesion.

The following recommendations were adapted from existing guidance as well as data from recent clinical trials.

1. Following biopsy, optimal excision margins (from the edge of the melanoma) are as follows:
    - pTis melanoma (in situ): 5 mm margin
    - pT1 melanoma (<1.0 mm): 1 cm margin
    - pT2 melanoma (1.0–2.0 mm): 1–2 cm margin
    - pT3 melanoma (2.0–4.0 mm): 1–2 cm margin
        - A wider margin (2 cm) is optimal, where possible, depending on tumour site and surgeon/patient preference.
    - pT4 melanoma (>4.0 mm): 2 cm margin
2. For melanomas of the distal extremities and face:
    - A minimum surgical margin is normally used (as outlined above) where possible, in order to maintain aesthetic and functional aspects.
        - Partial digital amputation usually incorporates the joint immediately proximal to the melanoma.
        - It should be noted that there is no data from randomized controlled trials to determine the effect of narrower margins on survival or recurrence in melanomas of the face and distal extremities.

- Radiotherapy may be a good alternative to surgery in elderly patients.
    - It should be noted that radiotherapy does not allow a histological evaluation of the tumour area and the side margins.
- Topical imiquimod is an experimental, but emerging, therapy that may be highly beneficial for some patients with lentigo maligna.
    - The optimal frequency and duration have yet to be determined.
    - Imiquimod may be best suited for poor operative candidates and those who refuse surgery.
    - A post-treatment biopsy is recommended to confirm destruction of the tumour, as imiquimod will not allow a histological evaluation of the tumour area and the side margins.

3. Mohs micrographic surgery allows for smaller surgical margins and, therefore, may be useful for melanomas on the face and distal extremities.
    - It should be noted that, to date, no randomized controlled trials have compared Mohs micrographic surgery with surgical excision in melanomas of the face and distal extremities; nevertheless, this procedure has demonstrated excellent recurrence-free survival rates in patients with melanoma of the face.
    - Based on data from randomized clinical trials in basal cell carcinoma, Mohs micrographic surgery appears to be tissue sparing and results in fewer recurrences of primary and recurrent disease.
4. If a patient is eligible for sentinel node biopsy (SNB), both the SNB and wide local excision should be performed together, ideally.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Primary cutaneous melanoma

Guideline Category

Management

Treatment

Clinical Specialty

Dermatology

Oncology

Radiation Oncology

Surgery

Intended Users

Physician Assistants

Physicians

Guideline Objective(s)

To define optimal excision margins for melanoma, in general, with special consideration to melanomas of the face and distal extremities

Target Population

Adults over the age of 18 years with malignant melanoma

Note: Different principles may apply to pediatric patients.

Interventions and Practices Considered

1. Excisional biopsy (with margins as clinically indicated)
2. Radiotherapy
3. Topical imiquimod
4. Mohs micrographic surgery
5. Sentinel node biopsy (SNB) and wide local excision, as indicated

Major Outcomes Considered

- Survival
- Recurrence rate
- Progression-free survival

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Research Questions

Specific research questions to be addressed by the guideline document were formulated by the guideline lead(s) and Knowledge Management (KM) Specialist using the PICO question format (Patient or Population, Intervention, Comparisons, Outcomes).

Guideline Questions

- What are the optimal excision margins for pTis? pT1? pT2? pT3? pT4 tumours?
- What are the optimal excision margins for melanomas of the distal extremities and face?
- What is the role of Mohs micrographic surgery in the management of primary cutaneous melanoma? In which patients (e.g., location and type of melanoma) is this procedure appropriate?

Search Strategy

The MEDLINE, EMBASE, and Cochrane databases were searched (1990 through May 2010) for clinical trials and meta-analyses. Search terms included: "excision margins" or "wide excision" or "surgical excision" or "Mohs surgery" AND "primary cutaneous melanoma" with limits of Human and English language. A total of 190 studies were returned, 17 of which were clinical trials.

In addition, the National Guideline Clearinghouse and individual guideline organizations were searched for practice guidelines relevant to this topic. A total of eight original clinical practice guidelines were identified from the following organizations: the National Health and Medical Research Council (Australia), the National Comprehensive Cancer Network, the BC Cancer Agency, the European Dermatology Forum, the Scottish

Intercollegiate Guidelines Network, the German Cancer Society, the American Society of Plastic Surgeons, and the European Society for Medical Oncology.

For the 2013 update of the guideline, PubMed was searched for evidence on optimal excision margins in cutaneous melanoma. The search term "melanoma" was used and results were limited to clinical trials, published through January 2013. Citations were hand-searched for studies pertaining to surgical excision.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Not stated

Rating Scheme for the Strength of the Evidence

Not applicable

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Evidence was selected and reviewed by a working group comprised of members from the Alberta Provincial Cutaneous Tumour Team and a Knowledge Management (KM) Specialist from the Guideline Utilization Resource Unit (GURU). A detailed description of the methodology followed during the guideline development process can be found in the Guideline Utilization Resource Unit Handbook (see the "Availability of Companion Documents" field).

Evidence Tables

Evidence tables containing the first author, year of publication, patient group/stage of disease, methodology, and main outcomes of interest are assembled using the studies identified in the literature search. Existing guidelines on the topic are assessed by the KM Specialist using portions of the Appraisal of Guidelines Research and Evaluation (AGREE) II instrument (http://www.agreetrust.org) and those meeting the minimum requirements are included in the evidence document. Due to limited resources, GURU does not regularly employ the use of multiple reviewers to rank the level of evidence; rather, the methodology portion of the evidence table contains the pertinent information required for the reader to judge for himself the quality of the studies.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Formulating Recommendations

The working group members formulated the guideline recommendations based on the evidence synthesized by the Knowledge Management (KM) Specialist during the planning process, blended with expert clinical interpretation of the evidence. As detailed in the Guideline Utilization Resource Unit Handbook (see the "Availability of Companion Documents" field), the working group members may decide to

adopt the recommendations of another institution without any revisions, adapt the recommendations of another institution or institutions to better reflect local practices, or develop their own set of recommendations by adapting some, but not all, recommendations from different guidelines.

The degree to which a recommendation is based on expert opinion of the working group and/or the Provincial Tumour Team members is explicitly stated in the guideline recommendations. Similar to the American Society of Clinical Oncology (ASCO) methodology for formulating guideline recommendations, the Guideline Utilization Resource Unit does not use formal rating schemes for describing the strength of the recommendations, but rather describes, in conventional and explicit language, the type and quality of the research and existing guidelines that were taken into consideration when formulating the recommendations.

Following a review of the evidence by the Alberta Provincial Cutaneous Tumour Team, no changes to the recommendations were made.

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published analyses were not reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

This guideline was reviewed and endorsed by the Alberta Provincial Cutaneous Tumour Team.

When the draft guideline document has been completed, revised, and reviewed by the Knowledge Management (KM) Specialist and the working group members, it is sent to all members of the Provincial Tumour Team for review and comment. This step ensures that those intended to use the guideline have the opportunity to review the document and identify potential difficulties for implementation before the guideline is finalized. Depending on the size of the document, and the number of people it is sent to for review, a deadline of one to two weeks will usually be given to submit any feedback. Ideally, this review will occur prior to the annual Provincial Tumour Team meeting, and a discussion of the proposed edits will take place at the meeting. The working group members will then make final revisions to the document based on the received feedback, as appropriate. Once the guideline is finalized, it will be officially endorsed by the Provincial Tumour Team Lead and the Executive Director of Provincial Tumour Programs.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The recommendations were adapted from existing guidance (see the "Adaptation" field) and data from recent clinical trials.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate determination of optimal excision margins for primary cutaneous melanoma to decrease recurrence and improve outcomes

Potential Harms

- With radiotherapy alone, there is no opportunity for a histological evaluation of the tumour area and the side margins.
- The development of invasive melanoma while receiving imiquimod treatment has been reported.

Qualifying Statements

Qualifying Statements

The recommendations contained in this guideline are a consensus of the Alberta Provincial Cutaneous Tumour Team and are a synthesis of currently accepted approaches to management, derived from a review of relevant scientific literature. Clinicians applying these guidelines should, in consultation with the patient, use independent medical judgment in the context of individual clinical circumstances to direct care.

Implementation of the Guideline

Description of Implementation Strategy

- Present the guideline at the local and provincial tumour team meetings and weekly rounds.
- Post the guideline on the Alberta Health Services website.
- Send an electronic notification of the new guideline to all members of CancerControl Alberta.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Identifying Information and Availability

Bibliographic Source(s)

Alberta Provincial Cutaneous Tumour Team. Optimal excision margins for primary cutaneous melanoma. Edmonton (Alberta): CancerControl Alberta; 2013 Feb. 10 p. (Clinical practice guideline; no. CU-10). [42 references]

Adaptation

The recommendations in this guideline were adapted from the following sources:

- Australian Cancer Network Melanoma Guidelines Revision Working Party. Clinical practice guidelines for the management of melanoma in

Australia and New Zealand: Treatment of primary melanoma. Wellington (NZ): The Cancer Council Australia, Australian Cancer Network, Sydney and New Zealand Guidelines Group; 2008. p. 73-7.
- American Society of Plastic Surgeons. Evidence-based clinical practice guideline: treatment of cutaneous melanoma. Arlington Heights (IL): American Society of Plastic Surgeons; 2007 May. 14 p.
- National Comprehensive Cancer Network. Melanoma Guidelines, 2010. URL: http://www.nccn.org/professionals/physician_gls/PDF/melanoma.pdf.
- European Dermatology Forum. Diagnosis and Treatment of Melanoma. European Consensus-based Interdisciplinary Guideline Developed by the Guideline Subcommittee of the European Dermatology Forum. http://www.euroderm.org/images/stories/guidelines/Guideline_malignant_melanoma-Update2012.pdf.

Date Released

2011 Feb (revised 2013 Feb)

Guideline Developer(s)

CancerControl Alberta - State/Local Government Agency [Non-U.S.]

Source(s) of Funding

CancerControl Alberta

There was no direct industry involvement in the development or dissemination of this guideline.

Guideline Committee

Alberta Provincial Cutaneous Tumour Team

Composition of Group That Authored the Guideline

Members of the Alberta Provincial Cutaneous Tumour Team include medical oncologists, radiation oncologists, surgical oncologists, dermatologists, nurses, pathologists, and pharmacists.

Financial Disclosures/Conflicts of Interest

Participation of members of the Alberta Provincial Cutaneous Tumour Team in the development of this guideline has been voluntary and the authors have not been remunerated for their contributions. CancerControl Alberta recognizes that although industry support of research, education and other areas is necessary in order to advance patient care, such support may lead to potential conflicts of interest. Some members of the Alberta Provincial Cutaneous Tumour Team are involved in research funded by industry or have other such potential conflicts of interest. However the developers of this guideline are satisfied it was developed in an unbiased manner.

Guideline Status

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This guideline updates a previous version: Alberta Cutaneous Tumour Team. Optimal excision margins for primary cutaneous melanoma. Edmonton (Alberta): Alberta Health Services, Cancer Care; 2011 Feb. 11 p. (Clinical practice guideline; no. CU-010).

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the Alberta Health Services Web site .

Availability of Companion Documents

The following is available:

- Guideline utilization resource unit handbook. Edmonton (Alberta): CancerControl Alberta; 2013 Jan. 5 p. Electronic copies: Available in Portable Document Format (PDF) from the Alberta Health Services Web site .

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on February 10, 2012. The information was verified by the guideline developer on March 30, 2012. This summary was updated by ECRI Institute on April 28, 2014. The updated information was verified by the guideline developer on May 23, 2014.

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